IN THE ABSTRACT:

For the purpose of enabling reduction of exposure dose, in an X-ray controlling method for an X-ray imaging apparatus for producing an image based on detected X-ray signals, an upper limit of an X-ray exposure dose to a subject to be imaged is set (603), and the tube current of an X-ray tube is modulated so that the exposure dose does not exceed the upper limit (606-610). The modulation of the tube current is achieved by finding an exposure dose predicted value based on an imaging protocol, and modifying a tube current set value in the imaging protocol when the predicted value exceeds the upper limit.